

## REMARKS

### Generally

By this submission, Applicants amended claims 1, 3, 5-7, 9-10, 13, 17, 19-20 and 25. Claims 11-12, 14-16, 18, 21-24, and 26-28 have been cancelled. Claims 29-43 have been added. Thus, claims 1-3, 5-7, 9-10, 13, 17, 19-20, 25, and 29-43 are pending.

Without prejudice to further prosecution, Applicants have amended the claims to only the scope that Examiner indicated was enabled in the final action. Support for the claims can be found at least at:

Claim Number(s)	Support in Specification
1	Page 2, lines 1-5, page 3, lines 4-20, page 7, line 10-page 9, line 2, page 15, line 15-page 17, line 17
2	Page 17, line 19-page 21, line 9
2-4	Page 2, lines 5-7
17	Page 1, lines 23-25, page 3, lines 4-20, page 7, line 10-page 9, line 2, page 15, line 15-page 17, line 17
31, 32, 40, 41	Page 2, lines 7-9, page 9, line 4-page 10, line 2
29, 30, 33, 34, 38, 39, 42, 43	Page 2, lines 10-15
13, 25	Page 2, lines 16-22 (as corrected), page 13, line 19-page 15, line 14
5, 6, 7, 35, 36, 37	Page 3, lines 30-33, page 4, lines 16-19
9, 10, 19, 20	Page 4, line 27-page 5, line 7, and Figure 3

### November 12, 2003 Rejection

Turning first the Office Action mailed November 12, 2003 in response to the Supplemental Amendment filed October 15, 2003, the Action required evidence to establish that the change was typographical and not substantive. This sequence (now called SEQ ID NO: 4) is found in the specification page 2, line, 20 and in Table 1 on page 14 and in pending claims 13 and 25.

Support for this correction is found in the article, "Selection of Continuous Epitope Sequences and Their Incorporation..." by Qiu, et al. The article is incorporated by reference on page 1 of the present specification, which means that it is considered part of the original specification. (The article is included with the information disclosure statement filed concurrently with this submission.) The article clearly shows on page 321, last sentence of column one, and page 323 in Table 1, that the list of synthesized epitope peptides, particularly SEQ ID NO: 4, was intended to be depicted as is shown in the present amendments. Thus, Qiu article is evidence that the sequence amendment is purely typographical in nature and is not a substantive change. Applicants request that the written description rejection be withdrawn.

#### October 15, 2003 Rejections

Applicants will now address the rejections from the October 15, 2003 Action in order.

#### *Rejections under 112(1)*

Claims 9, 10, 19, and 20, directed to the number of carrier units comprising a chain, were rejected as lacking written description. These claims have been amended and support for the amendment is at page 4, line 35 through page 5, line 7. This passage discusses a single epitope (n=1), the epitope connected in pairs (n=2), and the epitope provided in trios (n=3). As the action points out, Figure 3 shows n=8. Thus, claims indicating that n=1-8 or 3-8 are described.

Claims 1-3, 5-7, and 9-28 were rejected as only being enabling for a single immunologically reactive substance through the single pendant amine group of a single unit and not enabled for the scope as previously claimed. As stated above, Applicants have amended the claims so that they fit within the scope that the Action states is enabled. The new claims are added to clarify that a single immunologically reactive substance is attached to each unit and that the substance may be the same

substance for all units in a chain or a different substance. The antecedent term for “attachment site” is no longer relevant because that term has been eliminated.

Paragraph 5 of the October 15, 2003 action has several written description rejections, all of which are now obviated by amendment or claim cancellation. Paragraph 7 of the action rejects claim 28, which is now cancelled.

*Rejections under 112(2)*

The first rejection points out that the structure of the carrier was incorrect. Applicants have corrected the structure and thank Examiner for the observation. The second rejection relates to the words “R represents an attachment site.” This phrase has been eliminated from the claims. The third through fifth rejections are moot in light of the claim cancellations.

The RCE fee due with this communication is attached. Applicants believe the claims are now in condition for allowance. If any additional fee is due, the Commissioner is authorized to charge such fees to Perkins Coie's Deposit Account No. **50-2586**. If anything can be done to further this application, please contact the undersigned at 310-788-9900.

Respectfully submitted,

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